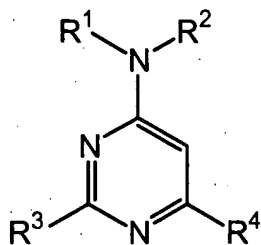


AMENDMENTS TO THE CLAIMS

Please amend claims 1, 6, 32, 35, and 36 as indicated below. Please also add new claim 37. Deletions appear in ~~strikethrough font~~, and additions are underlined. The listing of claims below will replace all prior versions and listings of claims in the application.

Complete listing of claims

1. (Currently amended) A compound of the formula I,



in which

R¹ is (C₁-C₈)-alkyl, which can be substituted by one or more identical or different substituents chosen from hydroxyl, (C₁-C₄)-alkoxy, (C₁-C₄)-alkyl-S(O)_m-, R⁵R⁶N and aryl; (C₃-C₉)-cycloalkyl, which can be substituted by one or more identical or different substituents chosen from (C₁-C₄)-alkyl, hydroxyl and amino; or a radical of a 5-membered to 7-membered saturated heterocyclic ring with one or two identical or different hetero ring members chosen from O, NR⁷ and S(O)_m and that can be substituted by one or more identical or different substituents chosen from (C₁-C₄)-alkyl and aryl- (C₁-C₄)-alkyl-; and

R^2 is hydrogen, (C₁-C₈)-alkyl, which can be substituted by one or more identical or different substituents chosen from hydroxyl, (C₁-C₄)-alkoxy, (C₁-C₄)-alkyl-S(O)_m-, R^5R^6N and aryl; (C₃-C₉)-cycloalkyl, which can be substituted by one or more identical or different substituents chosen from (C₁-C₄)-alkyl, hydroxyl and amino; or the radical of a 5-membered to 7-membered saturated heterocyclic ring with one or two identical or different hetero ring members chosen from O, NR^7 and S(O)_m and that can be substituted by one or more identical or different substituents chosen from (C₁-C₄)-alkyl and aryl-(C₁-C₄)-alkyl-; or

R^1R^2N is a radical, bonded via a ring nitrogen atom, of a 5-membered to 7-membered saturated heterocyclic ring optionally with, in addition to the nitrogen atom carrying the radicals R^1 and R^2 , a further hetero ring member chosen from O, NR^7 and S(O)_m and that can be substituted by one or more identical or different substituents chosen from (C₁-C₄)-alkyl, hydroxyl, (C₁-C₄)-alkoxy, R^8R^9N , hydroxycarbonyl, (C₁-C₄)-alkoxycarbonyl and R^8R^9N-CO- ;

R^3 is phenyl, which can be substituted by one or more identical or different substituents chosen from halogen, (C₁-C₄)-alkyl, phenyl, CF₃, NO₂, OH, -O-(C₁-C₄)-alkyl, -O-(C₂-C₄)-alkyl-O-(C₁-C₄)-alkyl, (C₁-C₂)-alkylenedioxy, NH₂, -NH-(C₁-C₄)-alkyl, N((C₁-C₄)-alkyl)₂, -NH-CHO, -NH-CO-(C₁-C₄)-alkyl, -CN, -CO-NH₂, -CO-NH-(C₁-C₄)-alkyl, -CO-N((C₁-C₄)-alkyl)₂, -CO-OH, -CO-O-(C₁-C₄)-alkyl, -CHO and -CO-(C₁-C₄)-alkyl;

R^4 is (C₂-C₅)-alkyl, trifluoromethyl or phenyl, which can be substituted by one or more identical or different substituents chosen from halogen, (C₁-C₄)-alkyl, phenyl, CF₃, NO₂, OH, -O-(C₁-C₄)-alkyl, -O-(C₂-C₄)-alkyl-O-(C₁-C₄)-alkyl, (C₁-C₂)-alkylenedioxy, NH₂, -NH-(C₁-C₄)-alkyl, N((C₁-C₄)-alkyl)₂, -NH-CHO, -NH-CO-(C₁-C₄)-alkyl, -CN, -CO-NH₂, -CO-NH-(C₁-C₄)-alkyl, -CO-

$N((C_1-C_4)\text{-alkyl})_2$, $-\text{CO}-\text{OH}$, $-\text{CO}-\text{O}-(C_1-C_4)\text{-alkyl}$, $-\text{CHO}$ and $-\text{CO}-(C_1-C_4)\text{-alkyl}$;

R^5 and R^6 are identical or different radicals chosen from hydrogen and $(C_1-C_4)\text{-alkyl}$; or the group R^5R^6N is a radical, bonded via a ring nitrogen atom, of a 5-membered to 7-membered saturated or unsaturated heterocyclic ring optionally with, in addition to the nitrogen atom carrying the radicals R^5 and R^6 , a further hetero ring member chosen from an oxygen atom, a group $S(O)_m$ and a nitrogen atom and that can carry on ring carbon atoms one or more identical or different substituents chosen from $(C_1-C_4)\text{-alkyl}$, hydroxyl and amino and that can carry on a ring nitrogen atom a radical R^7 ;

R^7 is hydrogen, $(C_1-C_4)\text{-alkyl}$, aryl- $(C_1-C_4)\text{-alkyl}$ -, hydroxy- $(C_1-C_4)\text{-alkyl}$ -, hydroxycarbonyl- $(C_1-C_4)\text{-alkyl}$ -, $((C_1-C_4)\text{-alkoxycarbonyl})-(C_1-C_4)\text{-alkyl}$ -, $R^8R^9N\text{-CO}-(C_1-C_4)\text{-alkyl}$ -, $R^{10}\text{-SO}_2\text{-}$ or aryl; where R^7 , if this group is present on a piperazino radical representing R^1R^2N , cannot be carbocyclic aryl or carbocyclic aryl- $(C^1-C^4)\text{-alkyl}$;

R^8 and R^9 are identical or different radicals chosen from hydrogen and $(C_1-C_4)\text{-alkyl}$;

R^{10} is $(C_1-C_4)\text{-alkyl}$, aryl or R^8R^9N ;

aryl is phenyl, naphthyl or heteroaryl, all of which can be substituted by one or more identical or different substituents chosen from halogen, $(C_1-C_4)\text{-alkyl}$, phenyl, CF_3 , NO_2 , OH , $-\text{O}-(C_1-C_4)\text{-alkyl}$, $\text{O}-(C_2-C_4)\text{-alkyl-O}-(C_1-C_4)\text{-alkyl}$, $(C_1-C_2)\text{-alkylenedioxy}$, NH_2 , $-\text{NH}-(C_1-C_4)\text{-alkyl}$, $-\text{N}((C_1-C_4)\text{-alkyl})_2$, $-\text{NH}-\text{CHO}$, $-\text{NH}-\text{CO}-(C_1-C_4)\text{-alkyl}$, $-\text{CN}$, $\text{CO}-\text{NH}_2$, $-\text{CO}-\text{NH}-(C_1-C_4)\text{-alkyl}$, $-\text{CO}-\text{N}((C_1-C_4)\text{-alkyl})_2$, $-\text{CO}-\text{OH}$, $-\text{CO}-\text{O}-(C_1-C_4)\text{-alkyl}$, $-\text{CHO}$ and $-\text{CO}-(C_1-C_4)\text{-alkyl}$;

heteroaryl is the radical of a monocyclic 5-membered or 6-membered aromatic heterocycle or of a bicyclic 8-membered to 10-membered aromatic heterocycle, each of which with one or two identical or different ring heteroatoms chosen from N, O and S;

m is 0, 1 or 2;

or a stereoisomeric form of a compound of formula I,

or a mixture of stereoisomeric forms of compounds of formula I in all ratios,

or a physiologically tolerable salt of a compound of formula I,

or a physiologically tolerable salt of a stereoisomeric form of a compound of formula I;

compounds of the formula I being excluded in which, simultaneously, R^4 is ethyl, tert-butyl, or trifluoromethyl, or unsubstituted phenyl; R^3 is phenyl, which can be substituted by one or two identical or different substituents chosen from halogen, OH, $-O-R^{11}$ and CF_3 , R^1R^2N is $R^{11}-NH-$, $(R^{11})_2N-$ or $R^{12}R^{13}N-(CH_2)_p-NH-$; p is 2 or 3; R^{11} is saturated unsubstituted (C_1-C_4) -alkyl; and R^{12} and R^{13} are identical or different radicals chosen from hydrogen and R^{11} or the group $R^{12}R^{13}N$ is a radical, bonded via a ring nitrogen atom, of a 5-membered or 6-membered saturated heterocyclic ring optionally with, in addition to the nitrogen atom carrying the radicals R^{12} and R^{13} , a further hetero ring member chosen from an oxygen atom, a sulfur atom and a nitrogen atom and that can be substituted by an aryl radical or by an aryl- (C_1-C_4) -alkyl radical, wherein the aryl group can be substituted by one or two identical or different substituents chosen from halogen, OH, $-O-R^{11}$, and CF_3 .

2. (Previously presented) A compound of claim 1, in which

R^1 is (C_1-C_8) -alkyl, which can be substituted by one or more identical or different substituents, chosen from, hydroxyl, (C_1-C_4) -alkoxy, (C_1-C_4) -alkyl-S(O)_m-,

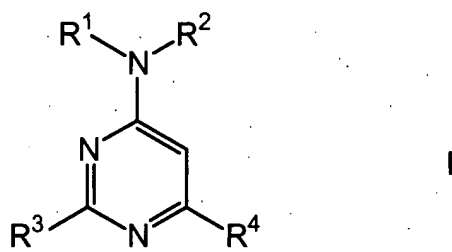
R^5R^6N and aryl; or is (C_3-C_9) -cycloalkyl, which can be substituted by one or more identical or different substituents chosen from (C_1-C_4) -alkyl, hydroxyl and amino; and

R^2 is hydrogen, (C_1-C_8) -alkyl, which can be substituted by one or more identical or different substituents chosen from hydroxyl, (C_1-C_4) -alkoxy, (C_1-C_4) -alkyl-S(O)_m-, R^5R^6N and aryl; or is (C_3-C_9) -cycloalkyl, which can be substituted by one or more identical or different substituents chosen from (C_1-C_4) -alkyl, hydroxyl and amino; or

R^1R^2N is a radical, bonded via a ring nitrogen atom of a 5-membered, 6-membered or 7-membered saturated heterocyclic ring optionally with, in addition to the nitrogen atom carrying the radicals R^1 and R^2 , a further hetero ring member chosen from an oxygen atom, a group S(O)_m and a nitrogen atom carrying a radical R^7 and that can be substituted by one or more identical or different substituents chosen from (C_1-C_4) -alkyl, hydroxyl, (C_1-C_4) -alkoxy, R^8R^9N , hydroxycarbonyl, (C_1-C_4) -alkoxycarbonyl and R^8R^9N-CO .

3. (Previously presented) A compound of claim 1, in which R^1 is (C_1-C_4) -alkyl, which can be substituted by one or more identical or different substituents chosen from hydroxyl, (C_1-C_4) -alkoxy, (C_1-C_4) -alkyl-S(O)_m-, R^5R^6N and aryl, or (C_3-C_9) -cycloalkyl, which can be substituted by one or more identical or different substituents chosen from (C_1-C_4) -alkyl, hydroxyl and amino, and R^2 is hydrogen; or R^1 and R^2 are identical or different (C_1-C_4) -alkyl, which can be substituted by one or more identical or different substituents chosen from hydroxyl, (C_1-C_4) -alkoxy, (C_1-C_4) -alkyl-S(O)_m-, R^5R^6N and aryl.
4. (Previously presented) A compound of claim 1, in which R^1 is (C_3-C_9) -cycloalkyl, which can be substituted by one or more identical or different substituents chosen from (C_1-C_4) -alkyl, hydroxyl and amino, and R^2 is hydrogen.

5. (Previously presented) A compound of claim 1, in which R^1R^2N - is an unsubstituted or substituted radical chosen from piperidino, morpholino and thiomorpholino (and its S-oxide and S,S-dioxide) and piperazino.
6. (Currently amended) A compound of ~~claim 4~~ the formula I,



in which

R¹ is (C₁-C₈)-alkyl, which can be substituted by one or more identical or different substituents chosen from hydroxyl, (C₁-C₄)-alkoxy, (C₁-C₄)-alkyl-S(O)_m, R⁵R⁶N and aryl; (C₃-C₉)-cycloalkyl, which can be substituted by one or more identical or different substituents chosen from (C₁-C₄)-alkyl, hydroxyl and amino; or a radical of a 5-membered to 7-membered saturated heterocyclic ring with one or two identical or different hetero ring members chosen from O, NR⁷ and S(O)_m and that can be substituted by one or more identical or different substituents chosen from (C₁-C₄)-alkyl and aryl-(C₁-C₄)-alkyl-; and

R² is hydrogen, (C₁-C₈)-alkyl, which can be substituted by one or more identical or different substituents chosen from hydroxyl, (C₁-C₄)-alkoxy, (C₁-C₄)-alkyl-S(O)_m, R⁵R⁶N and aryl; (C₃-C₉)-cycloalkyl, which can be substituted by one or more identical or different substituents chosen from (C₁-C₄)-alkyl, hydroxyl and amino; or the radical of a 5-membered to 7-membered

saturated heterocyclic ring with one or two identical or different hetero ring members chosen from O, NR⁷ and S(O)_m and that can be substituted by one or more identical or different substituents chosen from (C₁-C₄)-alkyl and aryl-(C₁-C₄)-alkyl; or

R¹R²N is a radical, bonded via a ring nitrogen atom, of a 5-membered to 7-membered saturated heterocyclic ring optionally with, in addition to the nitrogen atom carrying the radicals R¹ and R², a further hetero ring member chosen from O, NR⁷ and S(O)_m and that can be substituted by one or more identical or different substituents chosen from (C₁-C₄)-alkyl, hydroxyl, (C₁-C₄)-alkoxy, R⁸R⁹N, hydroxycarbonyl, (C₁-C₄)-alkoxycarbonyl and R⁸R⁹N-CO-;

in which R³ is substituted phenyl

R³ is phenyl, which is substituted by one or more identical or different substituents chosen from halogen, (C₁-C₄)-alkyl, phenyl, CF₃, NO₂, OH, -O-(C₁-C₄)-alkyl, -O-(C₂-C₄)-alkyl-O-(C₁-C₄)-alkyl, (C₁-C₂)-alkylenedioxy, NH₂, -NH-(C₁-C₄)-alkyl, N((C₁-C₄)-alkyl)₂, -NH-CHO, -NH-CO-(C₁-C₄)-alkyl, -CN, -CO-NH₂, -CO-NH-(C₁-C₄)-alkyl, -CO-N((C₁-C₄)-alkyl)₂, -CO-OH, -CO-O-(C₁-C₄)-alkyl, -CHO and -CO-(C₁-C₄)-alkyl;

R⁴ is (C₂-C₅)-alkyl, trifluoromethyl or phenyl, which can be substituted by one or more identical or different substituents chosen from halogen, (C₁-C₄)-alkyl, phenyl, CF₃, NO₂, OH, -O-(C₁-C₄)-alkyl, -O-(C₂-C₄)-alkyl-O-(C₁-C₄)-alkyl, (C₁-C₂)-alkylenedioxy, NH₂, -NH-(C₁-C₄)-alkyl, N((C₁-C₄)-alkyl)₂, -NH-CHO, -NH-CO-(C₁-C₄)-alkyl, -CN, -CO-NH₂, -CO-NH-(C₁-C₄)-alkyl, -CO-N((C₁-C₄)-alkyl)₂, -CO-OH, -CO-O-(C₁-C₄)-alkyl, -CHO and -CO-(C₁-C₄)-alkyl;

R⁵ and R⁶ are identical or different radicals chosen from hydrogen and (C₁-C₄)-alkyl; or the group R⁵R⁶N is a radical, bonded via a ring nitrogen atom, of

a 5-membered to 7-membered saturated or unsaturated heterocyclic ring optionally with, in addition to the nitrogen atom carrying the radicals R⁵ and R⁶, a further hetero ring member chosen from an oxygen atom, a group S(O)_m and a nitrogen atom and that can carry on ring carbon atoms one or more identical or different substituents chosen from (C₁-C₄)-alkyl, hydroxyl and amino and that can carry on a ring nitrogen atom a radical R⁷;

R⁷ is hydrogen, (C₁-C₄)-alkyl, aryl-(C₁-C₄)-alkyl-, hydroxy-(C₁-C₄)-alkyl, hydroxycarbonyl-(C₁-C₄)-alkyl-, ((C₁-C₄)-alkoxycarbonyl)-(C₁-C₄)-alkyl, R⁸R⁹N-CO-(C₁-C₄)-alkyl-, R¹⁰-SO₂- or aryl; where R⁷, if this group is present on a piperazino radical representing R¹R²N, cannot be carbocyclic aryl or carbocyclic aryl-(C¹-C⁴)-alkyl;

R⁸ and R⁹ are identical or different radicals chosen from hydrogen and (C₁-C₄)-alkyl;

R¹⁰ is (C₁-C₄)-alkyl, aryl or R⁸R⁹N;

aryl is phenyl, naphthyl or heteroaryl, all of which can be substituted by one or more identical or different substituents chosen from halogen, (C₁-C₄)-alkyl, phenyl, CF₃, NO₂, OH, -O-(C₁-C₄)-alkyl, O-(C₂-C₄)-alkyl-O-(C₁-C₄)-alkyl, (C₁-C₂)-alkylenedioxy, NH₂, -NH-(C₁-C₄)-alkyl, -N((C₁-C₄)-alkyl)₂, -NH-CHO, -NH-CO-(C₁-C₄)-alkyl, -CN, CO-NH₂, -CO-NH-(C₁-C₄)-alkyl, -CO-N((C₁-C₄)-alkyl)₂, -CO-OH, -CO-O-(C₁-C₄)-alkyl, -CHO and -CO-(C₁-C₄)-alkyl;

heteroaryl is the radical of a monocyclic 5-membered or 6-membered aromatic heterocycle or of a bicyclic 8-membered to 10-membered aromatic heterocycle, each of which with one or two identical or different ring heteroatoms chosen from N, O and S;

m is 0, 1 or 2;

or a stereoisomeric form of a compound of formula I,

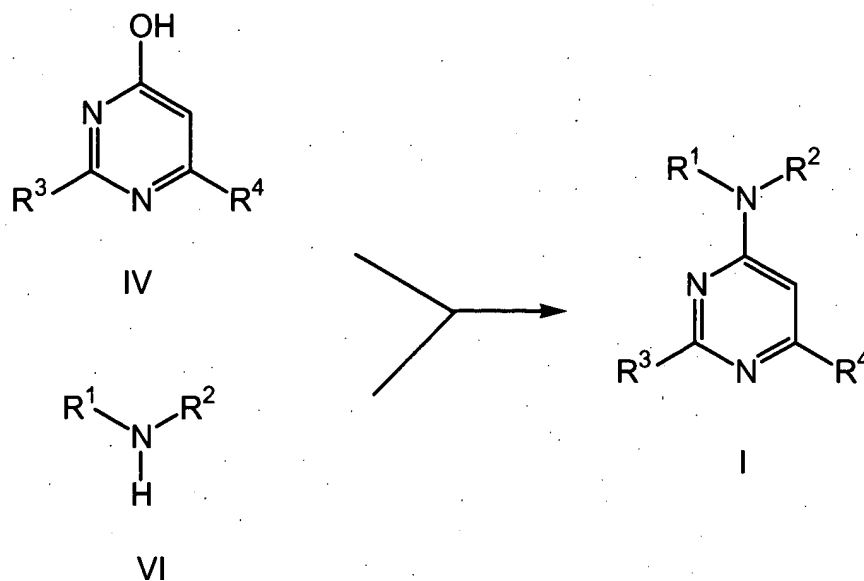
or a mixture of stereoisomeric forms of compounds of formula I in all ratios,

or a physiologically tolerable salt of a compound of formula I,

or a physiologically tolerable salt of a stereoisomeric form of a compound of formula I;

compounds of the formula I being excluded in which, simultaneously, R⁴ is ethyl, tert-butyl, or trifluoromethyl; R³ is phenyl, which is substituted by one or two identical or different substituents chosen from halogen, OH, -O-R¹¹ and CF₃, R¹R²N is R¹¹-NH-, (R¹¹)₂N- or R¹²R¹³N-(CH₂)_p-NH-; p is 2 or 3; R¹¹ is saturated unsubstituted (C₁-C₄)-alkyl; and R¹² and R¹³ are identical or different radicals chosen from hydrogen and R¹¹ or the group R¹²R¹³N is a radical, bonded via a ring nitrogen atom, of a 5-membered or 6-membered saturated heterocyclic ring optionally with, in addition to the nitrogen atom carrying the radicals R¹² and R¹³, a further hetero ring member chosen from an oxygen atom, a sulfur atom and a nitrogen atom and that can be substituted by an aryl radical or by an aryl-(C₁-C₄)-alkyl radical, wherein the aryl group can be substituted by one or two identical or different substituents chosen from halogen, OH, -O-R¹¹, and CF₃.

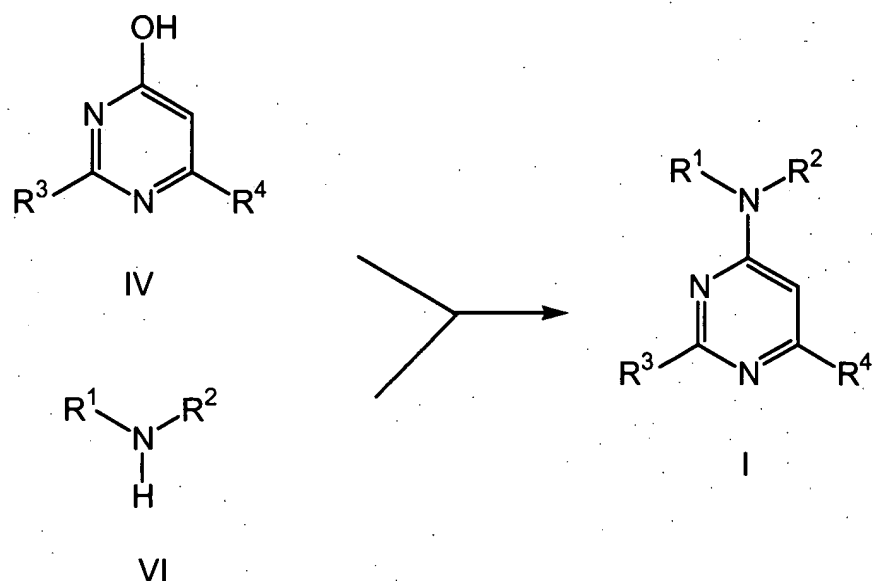
7. (Previously presented) A compound of claim 1, in which R⁴ is (C₃-C₄)-alkyl.
8. (Previously presented) A process for the preparation of at least one compound of claim 1, which comprises activating a 4-hydroxypyrimidine of the formula IV and then reacting it with an amine of a formula VI to produce a compound of formula I,



and optionally converting a compound of formula I into a pharmaceutically acceptable salt.

Claims 9-12 (Cancelled)

13. (Previously presented) A compound of claim 5, in which R³ is substituted phenyl.
14. (Previously presented) A compound of claim 5, in which R⁴ is (C₃-C₄)-alkyl.
15. (Previously presented) A process for the preparation of at least one compound of claim 5, which comprises activating a 4-hydroxypyrimidine of the formula IV and then reacting it with an amine of a formula VI;



and optionally converting the resulting product into a pharmaceutically acceptable salt.

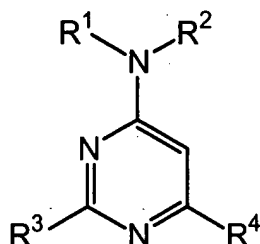
Claims 16-19 (Cancelled)

20. (Previously presented) A pharmaceutical composition, comprising one or more compounds of claim 1 and a pharmaceutically acceptable carrier.
21. (Previously presented) A pharmaceutical composition, comprising one or more compounds of claim 5 and a pharmaceutically acceptable carrier.

Claims 22-23 (Cancelled)

24. (Previously presented) A method of treating angina pectoris, comprising administering to a patient in need thereof an effective amount of at least one compound of claim 1.
25. (Previously presented) A method of treating angina pectoris, comprising administering to a patient in need thereof an effective amount of at least one compound of claim 5.

26. (Previously presented) A method of treating angina pectoris, comprising administering to a patient in need thereof an effective amount of at least one compound of formula I,



in which

R¹ is (C₁-C₈)-alkyl, which can be substituted by one or more identical or different substituents chosen from hydroxyl, (C₁-C₄)-alkoxy, (C₁-C₄)-alkyl-S(O)_m-, R⁵R⁶N and aryl; (C₃-C₉)-cycloalkyl, which can be substituted by one or more identical or different substituents chosen from (C₁-C₄)-alkyl, hydroxyl and amino; or a radical of a 5-membered to 7-membered saturated heterocyclic ring with one or two identical or different hetero ring members chosen from O, NR⁷ and S(O)_m and that can be substituted by one or more identical or different substituents chosen from (C₁-C₄)-alkyl and aryl-(C₁-C₄)-alkyl-; and

R² is hydrogen, (C₁-C₈)-alkyl, which can be substituted by one or more identical or different substituents chosen from hydroxyl, (C₁-C₄)-alkoxy, (C₁-C₄)-alkyl-S(O)_m-, R⁵R⁶N and aryl; (C₃-C₉)-cycloalkyl, which can be substituted by one or more identical or different substituents chosen from (C₁-C₄)-alkyl, hydroxyl and amino; or the radical of a 5-membered to 7-membered saturated heterocyclic ring with one or two identical or different hetero ring members chosen from O, NR⁷ and S(O)_m and that can be substituted by one or more identical or different substituents chosen from (C₁-C₄)-alkyl and aryl-(C₁-C₄)-alkyl-; or

R^1R^2N is a radical, bonded via a ring nitrogen atom, of a 5-membered to 7-membered saturated heterocyclic ring optionally with, in addition to the nitrogen atom carrying the radicals R^1 and R^2 , a further hetero ring member chosen from O, NR^7 and $S(O)_m$ and that can be substituted by one or more identical or different substituents chosen from (C_1-C_4) -alkyl, hydroxyl, (C_1-C_4) -alkoxy, R^8R^9N , hydroxycarbonyl, (C_1-C_4) -alkoxycarbonyl and R^8R^9N-CO- ;

R^3 is phenyl, which can be substituted by one or more identical or different substituents chosen from halogen, (C_1-C_4) -alkyl, phenyl, CF_3 , NO_2 , OH, $-O-(C_1-C_4)$ -alkyl, $-O-(C_2-C_4)$ -alkyl- $O-(C_1-C_4)$ -alkyl, (C_1-C_2) -alkylenedioxy, NH_2 , $-NH-(C_1-C_4)$ -alkyl, $N((C_1-C_4)$ -alkyl) $_2$, $-NH-CHO$, $-NH-CO-(C_1-C_4)$ -alkyl, $-CN$, $-CO-NH_2$, $-CO-NH-(C_1-C_4)$ -alkyl, $-CO-N((C_1-C_4)$ -alkyl) $_2$, $-CO-OH$, $-CO-O-(C_1-C_4)$ -alkyl, $-CHO$ and $-CO-(C_1-C_4)$ -alkyl;

R^4 is (C_2-C_5) -alkyl, trifluoromethyl or phenyl, which can be substituted by one or more identical or different substituents chosen from halogen, (C_1-C_4) -alkyl, phenyl, CF_3 , NO_2 , OH, $-O-(C_1-C_4)$ -alkyl, $-O-(C_2-C_4)$ -alkyl- $O-(C_1-C_4)$ -alkyl, (C_1-C_2) -alkylenedioxy, NH_2 , $-NH-(C_1-C_4)$ -alkyl, $N((C_1-C_4)$ -alkyl) $_2$, $-NH-CHO$, $-NH-CO-(C_1-C_4)$ -alkyl, $-CN$, $-CO-NH_2$, $-CO-NH-(C_1-C_4)$ -alkyl, $-CO-N((C_1-C_4)$ -alkyl) $_2$, $-CO-OH$, $-CO-O-(C_1-C_4)$ -alkyl, $-CHO$ and $-CO-(C_1-C_4)$ -alkyl;

R^5 and R^6 are identical or different radicals chosen from hydrogen and (C_1-C_4) -alkyl; or the group R^5R^6N is a radical, bonded via a ring nitrogen atom, of a 5-membered to 7-membered saturated or unsaturated heterocyclic ring optionally with, in addition to the nitrogen atom carrying the radicals R^5 and R^6 , a further hetero ring member chosen from an oxygen atom, a group $S(O)_m$ and a nitrogen atom and that can carry on ring carbon atoms one or more identical or different substituents chosen from (C_1-C_4) -alkyl,

hydroxyl and amino and that can carry on a ring nitrogen atom a radical R^7 ;

R^7 is hydrogen, (C_1-C_4) -alkyl, aryl- (C_1-C_4) -alkyl-, hydroxy- (C_1-C_4) -alkyl, hydroxycarbonyl- (C_1-C_4) -alkyl-, $((C_1-C_4)$ -alkoxycarbonyl)- (C_1-C_4) -alkyl, R^8R^9N -CO- (C_1-C_4) -alkyl-, R^{10} -SO₂- or aryl; where R^7 , if this group is present on a piperazino radical representing R^1R^2N , cannot be carbocyclic aryl or carbocyclic aryl- (C^1-C^4) -alkyl;

R^8 and R^9 are identical or different radicals chosen from hydrogen and (C_1-C_4) -alkyl;

R^{10} is (C_1-C_4) -alkyl, aryl or R^8R^9N ;

aryl is phenyl, naphthyl or heteroaryl, all of which can be substituted by one or more identical or different substituents chosen from halogen, (C_1-C_4) -alkyl, phenyl, CF₃, NO₂, OH, -O- (C_1-C_4) -alkyl, O- (C_2-C_4) -alkyl-O- (C_1-C_4) -alkyl, (C_1-C_2) -alkylenedioxy, NH₂, -NH- (C_1-C_4) -alkyl, -N $((C_1-C_4)$ -alkyl)₂, -NH-CHO, -NH-CO- (C_1-C_4) -alkyl, -CN, CO-NH₂, -CO-NH- (C_1-C_4) -alkyl, -CO-N $((C_1-C_4)$ -alkyl)₂, -CO-OH, -CO-O- (C_1-C_4) -alkyl, -CHO and -CO- (C_1-C_4) -alkyl;

heteroaryl is the radical of a monocyclic 5-membered or 6-membered aromatic heterocycle or of a bicyclic 8-membered to 10-membered aromatic heterocycle, each of which with one or two identical or different ring heteroatoms chosen from N, O and S;

m is 0, 1 or 2;

or a stereoisomeric form of a compound of formula I,

or a mixture of stereoisomeric forms of compounds of formula I in all ratios,

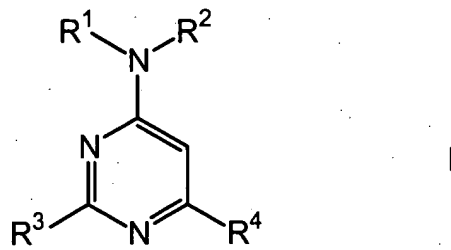
or a physiologically tolerable salt of a compound of formula I,

or a physiologically tolerable salt of a stereoisomeric form of a compound of formula I.

27. (Previously presented) A compound of claim 1, in which R¹ is (C₃-C₇)-cycloalkyl, which can be substituted by one or two identical or different substituents chosen from (C₁-C₄)-alkyl, hydroxyl and amino, and R² is hydrogen.
28. (Previously presented) A compound of claim 1, in which R¹ is (C₃-C₉)-cycloalkyl, which is substituted by hydroxyl and R² is hydrogen.
29. (Previously presented) A compound of claim 1, in which R¹ is cyclopentyl or cyclohexyl, wherein said cyclopentyl or cyclohexyl can be substituted by one or more identical or different substituents chosen from (C₁-C₄)-alkyl, hydroxyl and amino, and R² is hydrogen.
30. (Previously presented) A compound of claim 1, in which R¹ is cyclopentyl or cyclohexyl, wherein said cyclopentyl or cyclohexyl is substituted by one or two identical or different substituents chosen from (C₁-C₄)-alkyl, hydroxyl and amino, and R² is hydrogen.
31. (Previously presented) A compound of claim 1, in which R¹ is cyclopentyl or cyclohexyl, wherein said cyclopentyl or cyclohexyl is substituted by hydroxyl, and R² is hydrogen.
32. (Currently amended) A compound of claim 1, in which R¹ is cyclohexyl, which is substituted by hydroxyl, and R² is hydrogen.
33. (Previously presented) A compound of claim 1, in which R¹ is 4-hydroxycyclohexyl and R² is hydrogen.
34. (Previously presented) A compound of claim 1, in which R¹ is (C₁-C₈)-alkyl, which can be substituted by one or more identical or different substituents

chosen from hydroxyl, (C₁-C₄)-alkoxy, (C₁-C₄)-alkyl-S(O)_m-, R⁵R⁶N- and aryl, and R² is hydrogen.

35. (Currently amended) A compound of ~~claim 1,~~ the formula I,



in which

R¹R²N is cyclopentylamino, R³ is 4-methylphenyl, and R⁴ is isopropyl; or

R¹R²N is (trans-4-hydroxycyclohexyl)amino, R³ is 4-methylphenyl, and R⁴ is isopropyl; or

R¹R²N is cyclopropylamino, R³ is 4-chlorophenyl, and R⁴ is isopropyl; or

R¹R²N is (trans-4-hydroxycyclohexyl)amino, R³ is 3,5-dichlorophenyl, and R⁴ is isopropyl; or

R¹R²N is cyclopentylamino, R³ is 4-cyanophenyl, and R⁴ is isopropyl; or

R¹R²N is (4-hydroxycyclohexyl)amino, R³ is 4-cyanophenyl, and R⁴ is isopropyl;
or

R¹R²N is cyclopentylamino, R³ is 4-chlorophenyl, and R⁴ is isopropyl; or

R¹R²N is (trans-4-hydroxycyclohexyl)amino, R³ is 4-chlorophenyl, and R⁴ is isopropyl; or

R^1R^2N is (trans-4-aminocyclohexyl)amino, R^3 is 4-chlorophenyl, and R^4 is isopropyl; or

R^1R^2N is (cis/trans-4-hydroxycyclohexyl)amino, R^3 is 4-chlorophenyl, and R^4 is isopropyl; or

R^1R^2N is (4-methylcyclohexyl)amino, R^3 is 4-chlorophenyl, and R^4 is isopropyl; or

R^1R^2N is (2-isopropyl-5-methylcyclohexyl)amino, R^3 is 4-chlorophenyl, and R^4 is isopropyl; or

R^1R^2N is (trans-2-hydroxycyclohexyl)amino, R^3 is 4-chlorophenyl, and R^4 is isopropyl; or

R^1R^2N is cyclopentylamino, R^3 is 4-chlorophenyl, and R^4 is tert-butyl; or

R^1R^2N is (trans-4-hydroxycyclohexyl)amino, R^3 is 4-chlorophenyl, and R^4 is tert-butyl; or

R^1R^2N is cyclopentylamino, R^3 is 4-chlorophenyl, and R^4 is CF_3 ; or

R^1R^2N is (trans-4-hydroxycyclohexyl)amino, R^3 is 4-chlorophenyl, and R^4 is phenyl; or

R^1R^2N is cyclobutylamino, R^3 is 4-chlorophenyl, and R^4 is isopropyl; or

R^1R^2N is cyclononylamino, R^3 is 4-chlorophenyl, and R^4 is isopropyl;

or a stereoisomeric form of a compound of formula I,

or a mixture of stereoisomeric forms of compounds of formula I in all ratios,

or a physiologically tolerable salt of a compound of formula I,

or a physiologically tolerable salt of a stereoisomeric form of a compound of formula I.

36. (Currently amended) A compound of claim ~~43~~35, wherein in the formula I

R^1R^2N is (trans-4-hydroxycyclohexyl)amino, R^3 is 4-methylphenyl, and R^4 is isopropyl; or

R^1R^2N is (trans-4-hydroxycyclohexyl)amino, R^3 is 3,5-dichlorophenyl, and R^4 is isopropyl; or

R^1R^2N is (4-hydroxycyclohexyl)amino, R^3 is 4-cyanophenyl, and R^4 is isopropyl;
or

R^1R^2N is (trans-4-hydroxycyclohexyl)amino, R^3 is 4-chlorophenyl, and R^4 is isopropyl; or

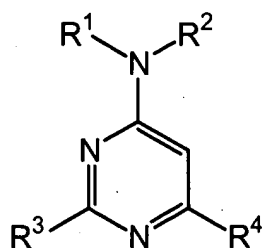
R^1R^2N is (cis/trans-4-hydroxycyclohexyl)amino, R^3 is 4-chlorophenyl, and R^4 is isopropyl; or

R^1R^2N is (trans-2-hydroxycyclohexyl)amino, R^3 is 4-chlorophenyl, and R^4 is isopropyl; or

R^1R^2N is (trans-4-hydroxycyclohexyl)amino, R^3 is 4-chlorophenyl, and R^4 is tert-butyl; or

R^1R^2N is (trans-4-hydroxycyclohexyl)amino, R^3 is 4-chlorophenyl, and R^4 is phenyl.

37. (New) A compound of the formula I,



in which

R¹ is (C₃-C₇)-cycloalkyl, which can be substituted by one or two identical or different substituents chosen from (C₁-C₄)-alkyl, hydroxyl and amino;

R² is hydrogen;

R³ is phenyl, which can be substituted by one or more identical or different substituents chosen from halogen, (C₁-C₄)-alkyl, phenyl, CF₃, NO₂, OH, -O-(C₁-C₄)-alkyl, -O-(C₂-C₄)-alkyl-O-(C₁-C₄)-alkyl, (C₁-C₂)-alkylenedioxy, NH₂, -NH-(C₁-C₄)-alkyl, N((C₁-C₄)-alkyl)₂, -NH-CHO, -NH-CO-(C₁-C₄)-alkyl, -CN, -CO-NH₂, -CO-NH-(C₁-C₄)-alkyl, -CO-N((C₁-C₄)-alkyl)₂, -CO-OH, -CO-O-(C₁-C₄)-alkyl, -CHO and -CO-(C₁-C₄)-alkyl; and

R⁴ is (C₂-C₅)-alkyl, trifluoromethyl or phenyl, which can be substituted by one or more identical or different substituents chosen from halogen, (C₁-C₄)-alkyl, phenyl, CF₃, NO₂, OH, -O-(C₁-C₄)-alkyl, -O-(C₂-C₄)-alkyl-O-(C₁-C₄)-alkyl, (C₁-C₂)-alkylenedioxy, NH₂, -NH-(C₁-C₄)-alkyl, N((C₁-C₄)-alkyl)₂, -NH-CHO, -NH-CO-(C₁-C₄)-alkyl, -CN, -CO-NH₂, -CO-NH-(C₁-C₄)-alkyl, -CO-N((C₁-C₄)-alkyl)₂, -CO-OH, -CO-O-(C₁-C₄)-alkyl, -CHO and -CO-(C₁-C₄)-alkyl;

or a stereoisomeric form of a compound of formula I,

or a mixture of stereoisomeric forms of compounds of formula I in all ratios,

or a physiologically tolerable salt of a compound of formula I,

or a physiologically tolerable salt of a stereoisomeric form of a compound of formula I.